

[Abstract]

[Object] To provide a timepiece spring whereby it is possible to ensure high precision and stable operation of precision mechanisms such as timepieces, and to provide a timepiece spring, a mainspring, a hairspring, and a timepiece wherein long-term operation can be ensured when the spring is used as a power source.

[Means] A mainspring used as a source to power a drive source is formed from a special titanium alloy and has an S-shape when freely spread out, wherein the inflection point at which the curving direction of the freely spread-out shape changes is formed farther inward than the midpoint of an inner end at the end of the winding side and an outer end at the end opposite the inner end. The titanium alloy constituting the present invention has high tensile stress and a low average Young's modulus, making it possible to increase the mechanical energy accumulated in the mainspring 31.